

Amendments to the Drawings

The attached two sheets of drawings includes changes to Figs. 1 and 3. These sheets, which include Figs. 1-3, replaces the two original sheets that include those same Figures.

Fig. 1 has been amended to add the legend "CONVENTIONAL ART," and Fig. 3 has been amended by changing "OPERATING A MOTOR IN THE POWER MODE" in step S18 to read - - OPERATING THE COMPRESSOR IN THE FULL MODE - -.

Attachment: Replacement Sheets (2)

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 1-15 are now present in this application. Claims 1, 8, 11, 12 and 13 are independent.

Amendments have been made to the specification and drawings, claims 11-15 are added, and claims 3-5 and 8 are amended. No new matter is involved.

Reconsideration of this application, as amended, is respectfully requested.

Priority Under 35 U.S.C. § 119

The Examiner has not acknowledged Applicants' claim for foreign priority under 35 U.S.C. § 119, and receipt of the certified priority document. Acknowledgment thereof by the Examiner in the next Office Action is respectfully requested.

Information Disclosure Citations

Applicants thank the Examiner for considering the references supplied with the Information Disclosure Statements filed on June 9, 2005 and September 19, 2006, and for providing Applicants with an initialed copy of the substitute PTO-1449 forms filed therewith.

Objection to the Drawings

The Examiner has objected to the drawings because a legend such as "Prior Art" is not found in Fig. 1, and Steps S17 and S18 are identical in Fig. 3, whereas they are different in the specification. In order to overcome this objection, Applicants are concurrently submitting corrected drawing Figs. 1 and 3, which address each of the deficiencies pointed out by the Examiner. Applicants are amending Fig. 1 to include the legend "Conventional Art," which is the terminology used in Applicants' specification, for example, on page 2, lines 14-16.

Accordingly, reconsideration and withdrawal of this objection are respectfully requested.

Specification Objection

The Examiner has objected to the specification because, on page 6, line 22, the motor is labeled 10, whereas it is shown in the drawings labeled with numeral 100, and is labeled with numeral 100 everywhere else in the specification. In order to overcome this objection, Applicants have amended the specification in order to correct this deficiency pointed out by the Examiner.

Reconsideration and withdrawal of this objection are respectfully requested.

Rejection Under 35 U.S.C. § 102

Claims 1, 2, 6 and 7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 6,841,967 to Kim et al. ("Kim'967"). This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is

not being repeated here.

A prior art reference anticipates the subject matter of a claim when that reference discloses every feature of the claimed invention, either explicitly or inherently. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed Cir. 1997). While, of course, it is possible that it is inherent in the operation of the prior art device that a particular element operates as theorized by the Examiner, inherency may not be established by probabilities or possibilities. What is inherent, must necessarily be disclosed. In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981) and In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

If the PTO fails to meet this burden, then the applicant is entitled to the patent. However, when a *prima facie* case is made, the burden shifts to the applicant to come forward with evidence and/or argument supporting patentability. Patentability *vel non* is then determined on the entirety of the record, by a preponderance of evidence and weight of argument, *Id.*

Moreover, as stated in MPEP § 707.07(d), where a claim is refused for any reason relating to the merits thereof it should be "rejected" and the ground of rejection fully and clearly stated.

Additionally, findings of fact and conclusions of law by the USPTO must be made in accordance with the Administrative Procedure Act, 5 U.S.C. § 706(A), (E) (1994). Zurko v. Dickinson, 527 U.S. 150, 158, 119 S.Ct. 1816, 1821, 50 USPQ2d 1930, 1934 (1999).

A claim limitation is inherent in the prior art if it is necessarily present in the prior art, not merely probably or possibly present. *Rosco v. Mirro Lite*, 304 F.3d 1373, 1380, 64 USPQ2d 1676 (Fed. Cir. 2002). The dispositive question regarding anticipation is whether one skilled in the art would reasonably understand or infer from the prior reference's teaching that every claim feature or limitation was disclosed in that single reference, *Dayco Products, Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368, 66 USPQ2d 1801 (Fed. Cir. 2003).

Initially, Applicants respectfully submit that Kim does not qualify as prior art under 35 USC § 102(b). In order to so qualify, Kim would have had to be patented or published more than one year prior to Applicant's filing date. Applicants' U.S. filing date under 35 USC § 371 is October 6, 2003 and Applicants' effective filing date under 35 USC § 119 is December 20, 2002, both of which are well prior to the January 11, 2005 date on which Kim was both published and patented.

Under the circumstances, Applicants will treat this rejection as being made under 35 USC § 102(e).

The Office Action asserts that Kim's main winding is part 100A-1. Applicants respectfully disagree with this statement. Kim explicitly discloses that part 100A-1 is Kim's "motor," and that the motor's main winding is a single coil which Kim designates as a "main coil" and labels as "MC." Kim explicitly states, in col. 4, lines 17-18, that "[T]he coils MC, SC1-SC4 of the motor 100A-1 includes the main coil MC and the plurality of sub-coils SC1-SC4."

Moreover, Kim discloses that its main coil MC is always operated with at least one sub-coil. This is clear from inspection of Fig. 3, and the discussion of how Fig. 3 operates, found in cols. 4 and 5 of Kim. For example, the greatest stroke is disclosed as being obtained when the first relay

Ry1 is used with main coil MC (col. 5, lines 17-23), and the smallest stroke is disclosed as being obtained when the fifth relay Ry5 is used with main coil MC (col. 5, lines 25-29). Because of this, Kim does not disclose a control unit for selecting a main winding coil of a linear motor of a compressor or an auxiliary winding coil on the basis of load capacity. Kim always selects both the main coil and at least one sub coil on the basis of load capacity. Also, for this same reason, Kim does not disclose a switching unit for selecting the main winding coil of the linear motor or the auxiliary winding coil on the basis of the control signal. Kim always selects both the main coil and at least one sub coil, and never selects the main coil or an auxiliary winding coil in the alternative, as recited.

Claim 1 also positively recites that the main winding coil of the linear motor is divided into a plurality of auxiliary winding coils, a feature not disclosed by Kim, which explicitly discloses a main coil MC separate from the disclosed sub (auxiliary) coils.

Furthermore, with respect to claim 2, Kim's control unit does not generate a control signal for selecting the winding coil MC of the linear motor or the auxiliary winding coil when a voltage applied to the linear motor is varied. Kim always selects the main coil MC and one or more auxiliary coils (sub-coils).

Similar comments apply to claim 6, which is phrased in the alternative, not the conjunctive, like claims 1 and 2.

Rejections under 35 U.S.C. § 103

Claims 3-5 and 8-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over

Kim '967 in view of U.S. Patent 6,877,326 to Kim ("Kim '326"). This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Because the rejection is based on 35 U.S.C. § 103, what is in issue in such a rejection is "the invention as a whole, "not just a few features of the claimed invention. Under 35 U.S.C. § 103, " [a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under §103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety. See Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983).

In rejecting claims under 35 U.S.C. §103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such

reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir.

1999).

Moreover, it is well settled that the Office must provide objective evidence of the basis used in a prior art rejection. A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Furthermore, during patent examination, the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the Applicant is entitled to the patent. Only when a *prima facie* case is made, the burden shifts to the applicant to come forward to rebut such a case.

Applicants respectfully submit that this Application, i.e., Serial No. 10/538,491, and both Kim'326 and Kim'967 are commonly assigned to LG Electronics, Inc. Applicants also state that at the time of the invention of the subject matter of claims 3-5 and 8-10, both Kim '867 and Kim'326 were assigned to LG Electronics, Inc. Because of this, Applicants respectfully submit that both Kim'967 and Kim'326 are not prior art to Applicants under 35 USC § 102(e)/103(a).

Accordingly, this rejection of claims 3-5 and 8-10 is improper and should be withdrawn.

Reconsideration and withdrawal of this rejection of claims 3-5 and 8-10 are respectfully requested.

Applicants also are willing to submit an accurate English language translation of their Priority Application under 35 USC § 119, i.e., of Korea 10-2002-0081874, filed on December 20, 2002, to also remove Kim'326 as a prior art reference, should the Examiner make such a

requirement.

Claims 11 and 12

Claims 11-15 have been added for the Examiner's consideration. Applicants submit that claims 11-15 patentably define over the applied art. For example, claim 11 positively recites a combination of features including a switching unit for selecting either all of the auxiliary coils that make up the main winding coil of the linear motor or only a single auxiliary winding coil on the basis of the control signal. Claim 12 positively recites a combination of features including applying power to a main winding coil of a linear motor of a compressor installed at the refrigerator, wherein the main winding coil of the linear motor is divided into a plurality of auxiliary winding coils, or to a single auxiliary winding coil of the linear motor on the basis of an inside temperature of the refrigerator and a predetermined reference temperature value, which are not disclosed or made obvious by the applied prior art references. Claim 13 positively recites a combination of features including a control unit for generating a control signal for selecting a main winding coil of a linear motor of a compressor of the refrigerator when at least one of an inside temperature of the refrigerator and an ambient temperature is the same as or smaller than a predetermined reference temperature value or an auxiliary winding coil when at least one of the inside temperature of the refrigerator and the ambient temperature is greater than the predetermined reference temperature value; and a switching unit for selecting the main winding coil of the linear motor or the auxiliary winding coil on the basis of the control signal; wherein the main winding coil of the linear motor is divided into a plurality of auxiliary winding coils,

load capacity is determined based on at least one of the inside temperature of the refrigerator and the ambient temperature, and the control unit controls the amount of currents flowing into the winding coil of the linear motor by outputting the generated control signal. Claims 14 and 15 depend from claim 13.

Additional Cited References

Because the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

Application No.: 10/538,491
Art Unit 2809

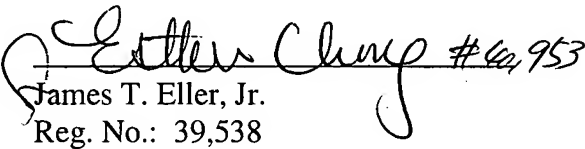
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Date: September 10, 2007

Respectfully submitted,

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Attachments: Replacement Drawings (2 Sheets)

CONVENTIONAL ART

FIG. 1

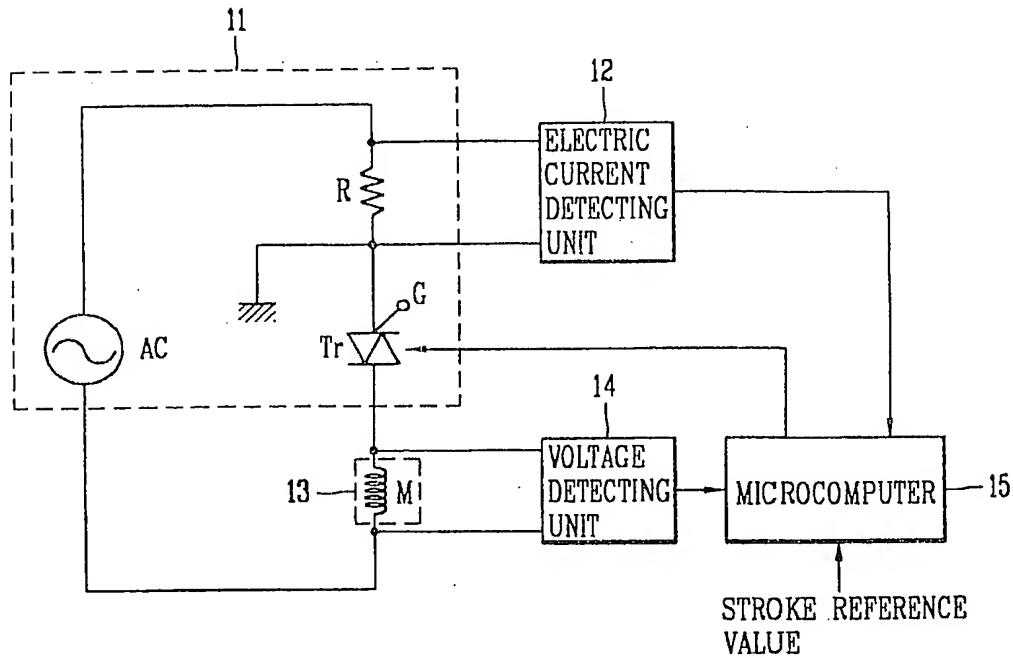


FIG. 2

